

| | Alt 1 | Alt 2 | New Scenario | What is Problem with the new scenario? | How can Flex Ops Help | What more can be done in Stage 1 to improve scenario for delta smelt? |
|----------------|----------|----------|---|--|--|--|
| Delta smelt | 1/2 * | 1/1 | 2/3 Benefits from reduced E/I, spring exports, X2, and Qwest. | <ol style="list-style-type: none"> 1. Continuing high although reduced entrainment including larvae, juveniles, and adults in all seasons of the year. 2. Potential to increase adult and larval losses in Feb-Mar from relaxed E/I's. 3. Potential to increase juvenile summer losses from relaxed E/I ratios and higher exports. 4. New fish facilities don't help because smelt are still pulled into facilities and handled. 5. Spring closure of the Head Of Old River Barrier would draw more smelt from Central Delta in all but wetter years. | <ol style="list-style-type: none"> 1. In wetter years with few smelt showing in the central and south Delta and in salvage, exports can be maximized in Feb-Jun period; however caution will be necessary from summer through fall when smelt could return to the Delta under low outflow and high exports. 2. In dry to normal years and some wet years like 1996 and 1997 there will be many smelt at risk from Feb-June as well as through the following winter, flex ops can be called on to keep entrainment down and Delta habitat conditions a optimal as possible to reduce smelt presence in the south Delta. Real-time monitoring will be tied closely to project operations both upstream and in Delta. 3. Monitoring, research, and experimentation conducted in concert with flex ops could lead to many beneficial operating scenarios. | <ol style="list-style-type: none"> 1. For delta smelt, new screens can be operated as fixed screens at 0.2 fps approach velocity with no bypass and handling during times when delta smelt are being salvaged in significant numbers. 2. Because there could be a lot of smelt in south Delta and not drawn into salvage facilities, habitat expansion in the south Delta in Stage 1 would provide some place for these fish to go to feed, grow, and avoid predators. Central Delta habitat expansion may help to limit smelt being drawn to south Delta. Expanding cross-sectional area of south Delta channels conveying water may reduce cues that draw smelt to the pumps. 3. Predator removal in the south Delta would help. Fish salvaged at non-smelt times could be hauled to the Bay or removed from the Bay/Delta system. An active predator removal program in the intake areas and south Delta would help. 4. Additional spring inflows prescribed in the ERP but not for Stage 1 could be provided to help keep smelt in Suisun Bay away from the pumps. This is essential in April-May period of dry years for delta smelt. 5. With new fish facilities to protect San Joaquin salmon, consider limiting closure of HOR barrier to minimize drawing smelt into south Delta in drier years. 6. In wet years don't limit spring or wet season exports and then increase summer exports as this would increase wet year effects on delta smelt. In wet years maximum flexibility should be possible. 7. Add in-Delta and south of Delta storage in Stage 1 to further enhance April-May Delta hydrology and export conditions in drier years. |